

REQUIREMENTS FOR WILDLAND-URBAN INTERFACE FIRE AREAS

SECTION 4701 GENERAL

4701.1 Scope. *The mitigation of conditions where a wildfire burning in vegetative fuels may readily transmit fire to buildings and threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses shall comply with this chapter.*

4701.2 Purpose. *The purpose of this chapter is to provide minimum standards to increase the ability of a building located in the Fire Hazard Severity Zone to resist the intrusion of flame or burning embers being projected by a vegetation fire and contributes to a systematic reduction in conflagration losses through the use of performance and prescriptive requirements.*

SECTION 4702 DEFINITIONS

4702.1 General. *For the purpose of this chapter, certain terms are defined as follows:*

CDF DIRECTOR means the Director of the California Department of Forestry and Fire Protection.

FIRE PROTECTION PLAN is a document prepared for a specific project or development proposed for a Wildland-Urban Interface Fire Area. It describes ways to minimize and mitigate potential for loss from wildfire exposure.

The Fire Protection Plan shall be in accordance with this chapter and in accordance with Appendix M of this code. When required by the building and/or fire code official, for the purposes of granting modifications, a fire protection plan shall be submitted.

FIRE HAZARD SEVERITY ZONES are geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High, or Moderate in State Responsibility Areas or as Local Agency Very High Fire Hazard Severity Zones designated pursuant to California Government Code Sections 51175 through 51189.

The California Code of Regulations, Title 14, Section 1280 entitles the maps of these geographical areas as "Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California."

IGNITION-RESISTANT MATERIAL is any product which, when tested in accordance with ASTM E 84 for a period of 30 minutes, shall have a flame spread of not over 25 and show no evidence of progressive combustion. In addition, the flame front shall not progress more than 10½ feet (3200 mm) beyond the centerline of the burner at any time during the test.

Materials shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D 2898 and ASTM D 3201. All materials shall bear identification showing the fire performance rating thereof. That identification shall be issued by ICC-ES/ICBO-ES or a testing facility

recognized by the state fire marshal or the building official and having a service for inspection of materials at the factory.

Fire-retardant-treated wood or noncombustible materials as defined in Section 202 shall satisfy the intent of this section.

The building official may use other definitions of ignition-resistant material that reflect wildfire exposure to building materials and/or their material's performance in resisting ignition.

LOCAL AGENCY VERY HIGH FIRE HAZARD SEVERITY ZONE means an area designated by a local agency upon the recommendation of the CDF Director pursuant to Government Code Sections 51177(c), 51178 and 51189 that is not a state responsibility area and where a local agency, city, county, city and county, or district is responsible for fire protection.

STATE RESPONSIBILITY AREA means lands that are classified by the Board of Forestry pursuant to Public Resources Code Section 4125 where the financial responsibility of preventing and suppressing forest fires is primarily the responsibility of the state.

WILDFIRE is any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property, or resources as defined in Public Resources Code Sections 4103 and 4104.

WILDFIRE EXPOSURE is one or a combination of radiant heat, convective heat, direct flame contact and burning embers being projected by vegetation fire to a structure and its immediate environment.

WILDLAND-URBAN INTERFACE FIRE AREA is a geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by this department to be at a significant risk from wildfires.

SECTION 4703 PLANS [RESERVED]

SECTION 4704 FIRE HAZARD SEVERITY ZONES

4704.1 General. *Lands in the state are classified by the CDF Director in accordance with the severity of wildfire hazard expected to prevail in those areas and the responsibility for fire protection, so that measures may be identified which will reduce the potential for losses to life, property, and resources from wildfire.*

4704.2 Classifications. *The CDF Director classifies lands into fire hazard severity zones in accordance with California Public Resources Code Sections 4201 through 4204 for State Responsibility Areas and in accordance with Government Code Sections 51175 through 51189 for areas where a local agency is responsible for fire protection.*

SECTION 4705

WILDLAND-URBAN INTERFACE FIRE AREA

4705.1 General. Construction methods and requirements to mitigate wildfire exposure shall be applied within the geographical areas designated as the Fire Hazard Severity Zone, where a wildfire burning in vegetative fuels may readily transmit fire to buildings and threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses.

4705.2 Construction methods and requirements within established limits. Within the limits established by law, construction methods intended to mitigate wildfire exposure shall comply with the Los Angeles County Building Code Chapter 7A, and this section.

4705.3 Establishment of limits. The establishment of limits for the Wildland-Urban Interface Fire Area's required construction methods shall be designated pursuant to the California Public Resources Code for State Responsibility areas or by this department following a finding supported by substantial evidence in the record that the requirements of this section are necessary for effective fire protection within the area.

SECTION 4706

VEGETATION MANAGEMENT [RESERVED]

SECTION 4707

DEFENSIBLE SPACE [RESERVED]

SECTION 4708

MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE

This section is applicable to all occupancy groups. All occupancy groups must also comply with the Los Angeles County Building Code.

4708.1 Scope, purpose and application.

4708.1.1 Scope. This section applies to building materials, systems and or assemblies used in the exterior design and construction of new buildings, and any additions, alterations or repairs to existing buildings located in or moved within a Wildland-Urban Interface Fire Area as defined in this chapter.

Exception: Greenhouses constructed as specified in Appendix C, of the Los Angeles County Building Code, when approved by the building official.

4708.1.2 Purpose. The purpose of this section is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flame or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses.

4708.1.3 Application. New buildings, and any additions, alterations or repairs to existing buildings located in or moved within any Fire Hazard Severity Zone within State

Responsibility Areas or any Wildland-Urban Interface Fire Area designated by this department for which an application for a building permit is submitted on or after January 1, 2008, shall comply with the requirements of this section.

4708.2 Alternates for materials, design, tests, and methods of construction. The building official is permitted to modify the provisions of this chapter for site-specific conditions in accordance with the Los Angeles County Building Code, Chapter 1, Section 104.2.7. When required by the building official for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with Chapter 47.

4708.3 Inspection and certification. Building permit applications and final completion approvals for buildings within the scope and application of this chapter shall comply with the following:

1. The building official shall, prior to construction, provide the owner or applicant with a certification that the building as proposed to be built complies with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this chapter.
2. The building official shall, upon completion of construction, provide the owner or applicant with a copy of the final inspection report that demonstrates the building was constructed in compliance with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this chapter.
3. Prior to building permit final approval, the property shall be in compliance with the vegetation clearance requirements prescribed in California Public Resources Code Section 4291, California Government Code Section 51182 and this code.

SECTION 4709

STANDARDS OF QUALITY [RESERVED]

SECTION 4710

MATERIALS, SYSTEMS AND METHODS OF CONSTRUCTION

4710.1 Roofing.

4710.1.1 General. Roofs shall comply with the requirements of the 2008 Los Angeles County Building Code, Chapter 7A and Chapter 15. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.

4710.1.2 Roof coverings. Roof coverings shall be Class A as specified in Section 1505.2 of the Los Angeles County Building Code. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, and be firestopped with approved materials or have one layer of No. 72 ASTM cap sheet installed over the combustible decking. Wood-shingle and wood-shake roofs are prohibited in Very High Fire Hazard Severity Zones (VHFHSZ), regardless of classification.

4710.1.3 Roof valleys. When provided, valley flashings shall be not less 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide (914 mm) underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley.

4710.1.4 Roof gutters. Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.

4710.2 Attic ventilation.

4710.2.1 General. When required by the California Building Code, Chapter 15, roof and attic vents shall resist the intrusion of flame and embers into the attic area of the structure, or shall be protected by corrosion-resistant, noncombustible wire mesh with 1/4-inch (6 mm) openings or its equivalent.

4710.2.2 Eave or cornice vents. Vents shall not be installed in eaves and cornices.

Exception: Eave and cornice vents may be used provided they resist the intrusion of flame and burning embers into the attic area of the structure.

4710.2.3 Eave protection. Eaves and soffits shall meet the requirements of SFM 12-7A-3 or shall be protected by ignition-resistant materials or noncombustible construction on the exposed underside.

SECTION 4711 EXTERIOR WALLS [RESERVED]

SECTION 4712 DECKING, FLOORS AND UNDERFLOOR PROTECTION [RESERVED]

SECTION 4713 ANCILLARY BUILDINGS AND STRUCTURES [RESERVED]

SECTION 4714 STANDARDS OF QUALITY

This section is applicable to all occupancy groups. All occupancy groups must also comply with the *Los Angeles County Building Code*.

4714.1 General. Material, systems and methods of construction used shall be in accordance with this chapter.

4714.2 Qualification by Testing. Material and material assemblies tested in accordance with the requirements of the 2008 *Los Angeles County Building Code*, Chapter 7A, Section 703A, shall be accepted for use when the results and conditions of those tests are met. Testing shall be performed by a testing agency approved by the state fire marshal, the building official or identified by an ICC-ES/ICBO-ES report.

4714.3 Standards of Quality. The state fire marshal standards listed below and as referenced in this chapter are located in the California Referenced Standards, Chapter 45, of this code.

SFM 12-7A-1, Exterior Wall Siding and Sheathing

SFM 12-7A-2, Exterior Windows

SFM 12-7A-3, Under Eave

SFM 12-7A-4, Decking

SECTION 4715 EXTERIOR WALLS

This Section is applicable to all occupancy groups. All occupancy groups must also comply with the *Los Angeles County Building Code*.

4715.1 General. Exterior walls shall be approved noncombustible or ignition resistant material, heavy timber or log wall construction or shall provide protection from the intrusion of flames and embers in accordance with Standard SFM 12-7A-1.

4715.1.1 Exterior wall coverings. Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2-inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.

4715.2 Exterior wall openings. Exterior wall openings shall be in accordance with this section.

4715.2.1 Exterior wall vents. Unless otherwise prohibited by other provisions of this code, vent openings in exterior walls shall resist the intrusion of flame and embers into the structure or vents shall be screened with a corrosion-resistant, noncombustible wire mesh with 1/4 inch (6 mm) openings or its equivalent.

4715.2.2 Exterior glazing and window walls. Exterior windows, window walls, glazed doors and glazed openings within exterior doors shall be multipane glazing units with a minimum of one tempered pane, or glass block units, or have a fire resistance rating of not less than 20 minutes, when tested according to ASTM E 2010, or conform to the performance requirements of SFM 12-7A-2.

4715.2.3 Exterior door assemblies. Exterior door assemblies shall conform to the performance requirements of standard SFM 12-7A-1 or shall be of approved noncombustible construction, or solid core wood having stiles and rails not less than 1 3/8 inches thick with interior field panel thickness not less than 1 1/4 inches thick, or shall have a fire resistance rating of not less than 20 minutes when tested according to ASTM E 2074.

Exception: Noncombustible or exterior fire retardant treated wood vehicle access doors are not required to comply with this chapter.

SECTION 4716 DECKING, FLOORS AND UNDERFLOOR PROTECTION

This section is applicable to all occupancy groups. All occupancy groups must also comply with the *Los Angeles County Building Code*.

4716.1 Decking.

4716.1.1 Decking surfaces. Decking surfaces, stair treads, risers, and landings of decks, porches, and balconies where any portion of such surface is within 10 feet (3048 mm) of the primary structure shall comply with one of the following methods:

1. Shall be constructed of ignition-resistant materials and pass the performance requirements of SFM 12-7A-4, Parts A and B.
2. Shall be constructed with heavy timber, exterior fire retardant treated wood or approved noncombustible materials.
3. Shall pass the performance requirements of SFM 12-7A-4, Part A, 12-7A-4.7.5.1 only with a net peak heat release rate of 25kW/sq-ft for a 40 minute observation period and:
 - a. Decking surface material shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM E 84 and;
 - b. The exterior wall covering to which the deck is attached and within 10 feet (3048 mm) of the deck shall be constructed of approved noncombustible or ignition resistant material.

Exception: Walls are not required to comply with this subsection if the decking surface material conforms to ASTM E 84 Class B flame spread.

The use of paints, coatings, stains or other surface treatments are not an approved method of protection as required in this chapter.

4716.2 Underfloor and appendages protection.

4716.2.1 Underside of appendages and floor projections. The underside of cantilevered and overhanging appendages and floor projections shall maintain the ignition-resistant integrity of exterior walls, or the projection shall be enclosed to the grade.

4716.2.2 Unenclosed underfloor protection. Buildings shall have all underfloor areas enclosed to the grade with exterior walls in accordance with *Los Angeles County Building Code* Section 704A.3.

Exception: The complete enclosure of underfloor areas may be omitted where the underside of all exposed floors, exposed structural columns, beams, and supporting walls are protected as required with exterior ignition-resistant material construction or be heavy timber.

SECTION 4717 ANCILLARY BUILDINGS AND STRUCTURES

This section is applicable to all occupancy groups. All occupancy groups must also comply with the *Los Angeles County Building Code*.

4717.1 Ancillary buildings and structures. When required by the building official, ancillary buildings and structures and detached accessory structures shall comply with the provisions of this chapter.